

REMARKS

Claims 60-71 have been cancelled. New claims 86-109 have been added. Hence, claims 50-59 and 72-109 are active in this case. All of the newly-added claims are supported by the disclosure and claims as originally filed. See in particular, pages 9-14 of the present specification.

Claims 50-59 and 72-85 have been indicated as allowed in the official action of December 11, 2003.

REQUEST FOR RECONSIDERATION

Applicants wish to thank Examiner Barry for the indication claims 50-59 and 72-85 are allowed.

However, claims 61-71 stand objected to.

In view of the above amendments, where the subject matter of claim 61 is presented as claim 86 in independent form, it is believed that this objection is now moot.

Claim 60 stands rejected under 37 U.S.C. § 102(a) as unpatentable over WO 99/04878 to Nedez.

However, this reference merely describes the reduction of amounts of organophosphorus compounds in a gaseous or liquid chemical process waste stream by adding a composition or mixture containing titanium dioxide, alkaline earth metal and iron thereto. Thus, this reference clearly only teaches the use of mixtures of such compounds and not by-products in eliminating "organophosphorus compounds contained in a gas or liquid." See the Abstract and the English language equivalent U.S. 6,656,363.

In fact, there are several important differences between the present invention and Nedez, each of which will now be discussed in detail.

First, Nedez teaches the use of a mixture of individual chemical compounds, which mixture is produced by mixing or combining them together. See Cols. 3, 4 and 5 of U.S. 6,656,363. By contrast, the present invention uses an industrial by-product. The reference clearly fails to either disclose or suggest the use of industrial by-products as in the present invention.

Second, the reference teaches the use of mixtures of the noted compounds of aluminum and/or titanium dioxide which may be doped with “alkaline metals, alkaline-earth metals and/or rare earths” to eliminate “organophosphorus compounds” from a gas or liquid containing them. Specifically, col. 6, lines 11-19 of the references.

The process according to the invention is suitable, for example, for treating nitrile or dinitrile compounds comprising organophosphorus impurities.

The process of the invention is particularly suitable for treating a liquid originating from the dimerization reaction of acrylonitrile in the presence of catalysts containing phosphorus, or from the hydrocyanation reaction of butadiene in the presence of catalysts containing phosphorus.

Clearly, this reference fails to either disclose or suggest the treatment of soils by immobilizing part or all of contaminant bio-available phosphorus contained therein.

Third, the reference teaches from Example 1 (see col. 6, lines 59-61) that the phosphorus compounds are “absorbed by the alumina.” Clearly, from the mere fact that alumina is not used at all in the present invention, this reference would also fail to either disclose or suggesting immobilizing contaminating bio-available phosphorus in soil.

Of course, all of the above differences between the present invention and Nedez may be seen to arise from the fact that each addresses a very different problem. Nedez addresses the problem of organophosphorus contaminants in liquid or gas, industrial reaction streams, such as those stemming from the dimerization of acrylonitrile or

hydrocyanation reaction of butadiene as noted above. The undesired organophosphorus impurities are absorbed in alumina. See Example 1.

In contrast, the present invention addresses the problem of agricultural run-off of bio-available phosphorus from land to bodies of water, such as rivers or bays. Such run-off is now considered to be partially responsible for outbreaks of *Pfisteria*-like organisms in various rivers along the east coast of the United States. Unfortunately, soils “amended” with large quantities of organic or inorganic phosphorus as fertilizers may generate significant amounts of soluble phosphorus that can be readily transported by surface and sub-surface run-off and groundwater leachate to rivers or bays. The present invention provides an effective and relatively inexpensive manner of immobilizing the otherwise soluble phosphorus in the soil to prevent run-off to bodies of water where the phosphorus would promote the growth of *Pfisteria*-like organisms.

Clearly, in view of all of the above differences, one skilled in the art would be neither motivated nor enabled by Nedez to practice the present invention.

Hence, for all of the above reasons, this ground of rejection is believed to be unsustainable and should be withdrawn.

Accordingly, in view of the above amendments and attendant remarks, it is believed that the present application now stands in condition for allowance. Early notice to this effect is earnestly solicited.

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Respectfully submitted,

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